

### Leading Change Through Differentiated PD Approaches and Structures

University-District partnerships for Strengthening Instructional Leadership In Mathematics



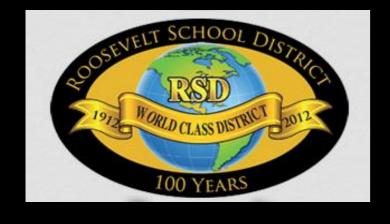


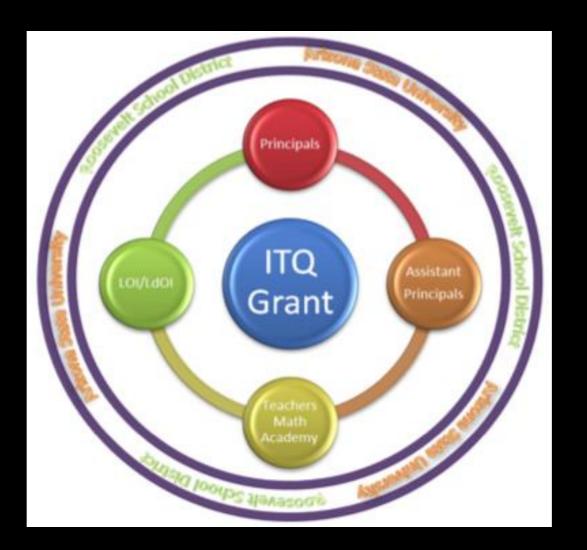


### Strengthening Instructional Leadership in Mathematics

Two significant shifts in education policy in Arizona (the adoption of the AZCCRS and the recent legislation directing the evaluation of teachers and principals) are dramatically impacting the practice of classroom teaching and creating an urgent need for specialized professional development for teachers and principals statewide. Instructional leaders who participate in this grant project will be able to develop and coach their teachers throughout the implementation of the AZCCRS in mathematics, provide enhanced coaching and constructive evaluation of AZCCRS mathematics instruction and model effective instructional leadership for other aspiring and practicing school leaders.

- Examine the research-affirmed foundation of mathematics content and process standards to deepen understanding of the AZCCRS in mathematics
- Examine the instructional shifts necessary to implement the AZCCRS in mathematics
- Examine evidence-based best practices for effective observation, coaching and evaluation of AZCCRS in mathematics
- Examine effective practices to develop an understanding of the AZCCRS in mathematics for the parent/guardians, community members and other stakeholders





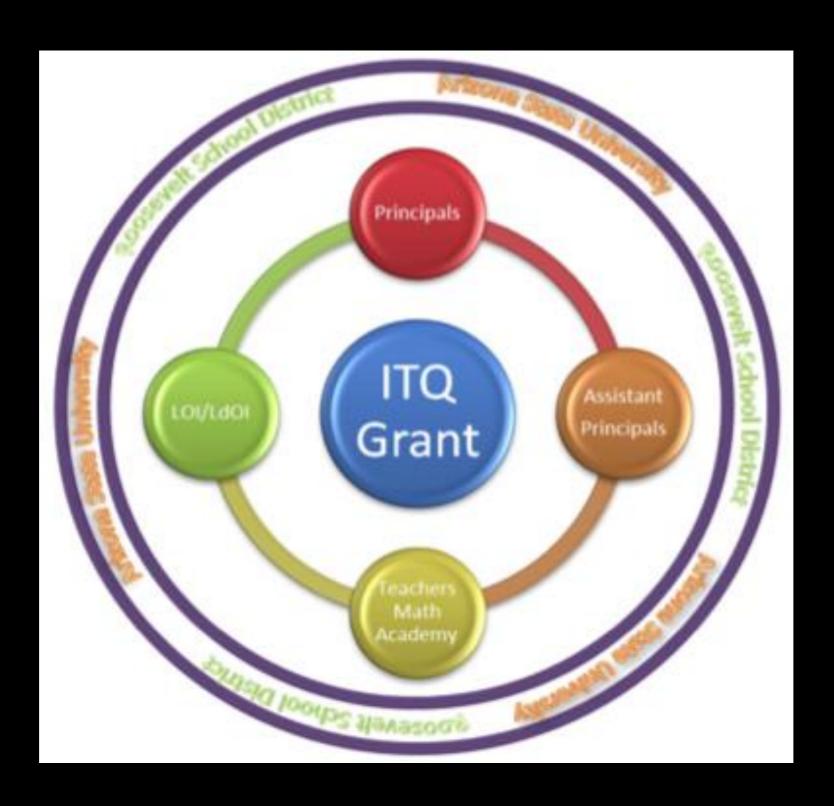


### Coherence & Sustainability

An ASU & Roosevelt S.D. Partnership for Strengthening Instructional Leadership in Mathematics

### Coherence

Working
Together



To
Impact
Change

### Professional Development

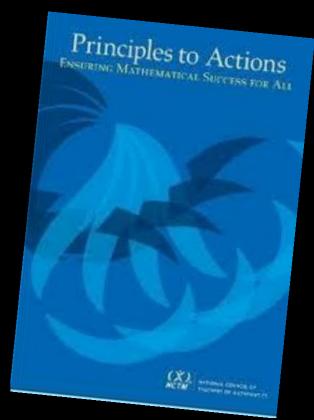
- Year-long professional learning opportunities that included a minimum of six sessions for each cohort
  - ✓ Principal Cohort
  - ✓ Assistant Principal Cohort
  - ✓ Teacher Math Academy Cohorts (K, 4<sup>th</sup>, 5<sup>th</sup>)

### Leadership PD

- A continuum of learning that focused on:
  - ✓ Developing common language and understanding about mathematics
  - ✓ Promoting rigor and complexity
  - ✓ Examining the AZCCRS-M and the Learning Observation Instrument (LOI)
  - ✓ Building leadership capacity to provide teachers meaningful feedback related to math content and pedagogy as aligned to the Leading Observation Instrument (LdOI)

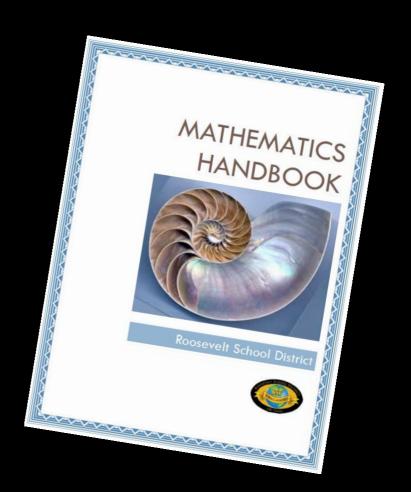
### Instructional Rounds

- Leadership participated in group walkthroughs and engaged in dialogue about:
  - ✓ Alignment of Content
  - ✓ Mathematical Representations
  - ✓ Mathematical Discourse
  - ✓ Purposeful Questioning



### Teacher Involvement

- With a year-long focus on mathematics, the leadership sessions were complemented by ongoing professional development and work with teachers:
  - ✓ Math Academy
  - ✓ PD Days
  - ✓ Teacher Institute



### Sustainability

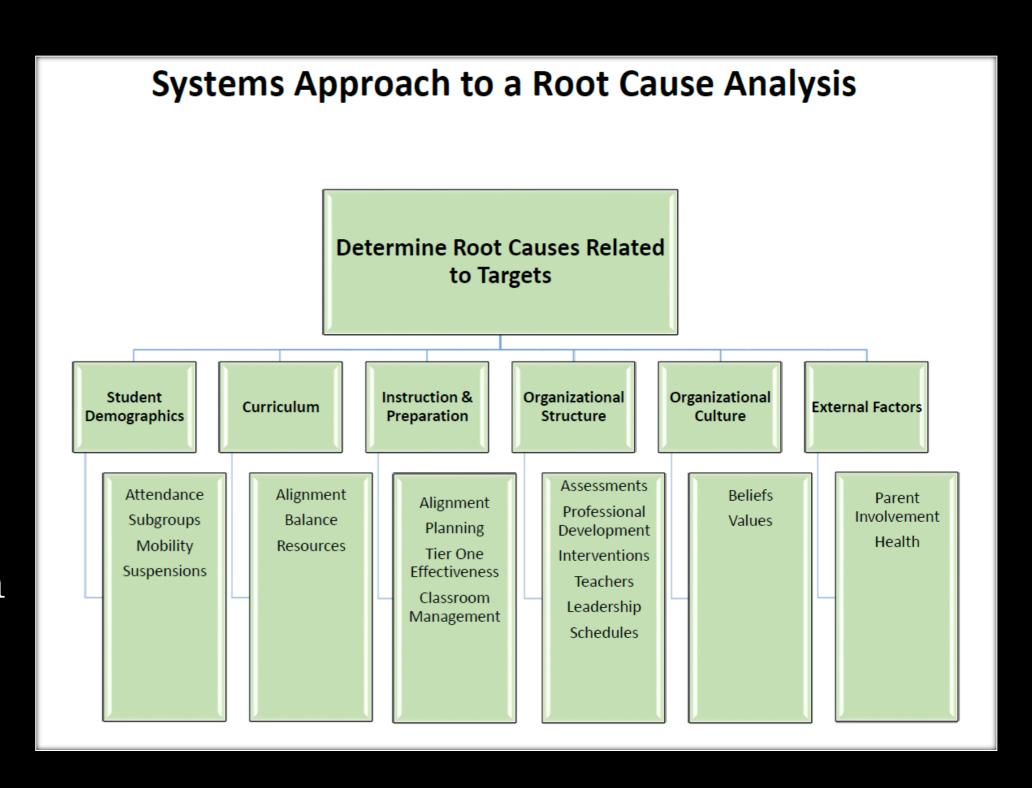
Moving



Forward

### Math Task Force

Close examination of contributing factors leading to our current reality with student math achievement



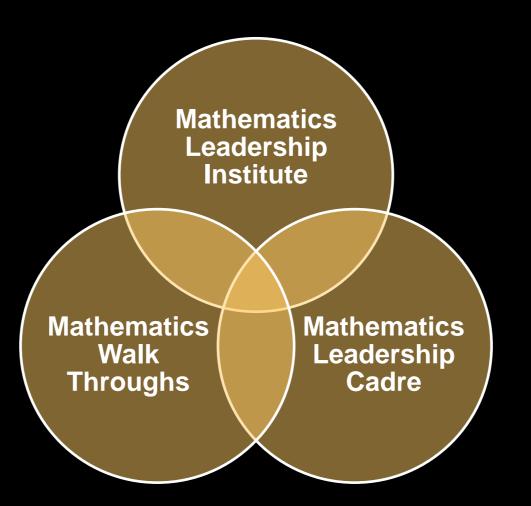
# Narrowing the Focus Priority Areas

- 1. Create a system to BUILD and SUSTAIN teacher math knowledge in order to increase student math achievement
- 2. Create a structure for follow up and/or follow through on initiatives

### Teacher Leader Project

- Identify and support math teacher leaders to
  - ✓ Increase capacity on each campus
  - ✓ Support colleagues with math instruction, foster collaboration and allow for vertical articulation







### Capacity Building & Sustainability

A University of Arizona & Sunnyside USD
Partnership for

Strengthening Instructional Leadership in Mathematics

## Mathematics Leadership Institute

2 day institute for leadership teams

Summer of 2014

 Principals and other site administrators, site-based coaches, teacher leaders, and district leadership

### Outcomes of the Institute

 Build deeper understanding of the shifts and expectations in the Arizona College and Career Ready Mathematics Standards

 Provide tools for messaging about standards to teachers, parents, and community members

## Mathematics Leadership Cadre

 After the summer mathematics leadership institute, principals requested support in sharing the same experience with all their teachers

 Schools were clustered and schedule was set for the delivery of six mathematics professional development sessions during early release Wednesdays for 2014-2015 school year Teams for each cluster were identified to attend six trainer of trainer sessions and facilitate professional development sessions. Teams were comprised of 6 to 8 members and included administrators, coaches, and teacher leaders.

### Mathematics Walkthroughs

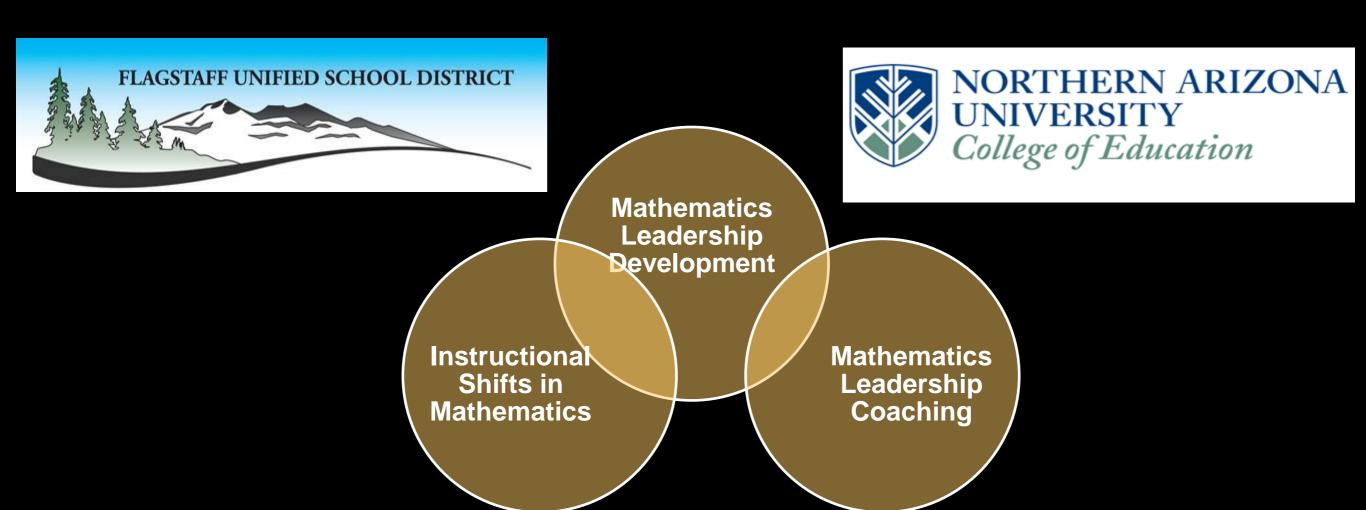
- Collaborative walkthroughs
- Quarterly during the 2014-2015 school year
- Clusters of 3 or 4 schools



- Site leadership and district team members
- Location for the walkthrough rotated, the hosting principal could determine the focus and schedule for the walkthroughs

# Outcomes of the Sessions

- Analyze mathematics instruction for alignment to standards and implementation of mathematical practices
- Discuss critical aspects of mathematics instruction and develop leadership skills to provide effective feedback
- Determine next steps for PD or coaching



### Mathematics Instructional Leadership

A Northern Arizona University & Flagstaff
Unified School District, Partnership for
Strengthening Instructional Leadership
in Mathematics

#### Phase One

- Spring of 2014
- Mathematics Leadership Needs Assessment
- Principals, site administrators, site-based teacher leaders, mathematics leaders and district leadership
- Professional development action plan

### Phase One

Examine the research-affirmed foundation of mathematics content and process standards to deepen understanding of the AZCCRS in mathematics expectations

Focus on the school leader's role in promoting students' attainment of the mathematics content and practices in AZCCRS in mathematics

Recognize the essential role of collaborative teams to support the transition to the AZCCRS in mathematics and identify key collaborative team activities for AZCCRS in mathematics implementation

Discover the essential instructional shifts necessary to implement the AZCCRS for mathematics

Examine evidence-based best practices for effective observation, coaching and evaluation of the AZCCRS in mathematics, both content and pedagogy. It is essential that differentiation with regard to district evaluation be considered.

Examine effective practices to develop an understanding of the AZCCRS in mathematics for the parent/guardian, community members and other stakeholders.

#### Phase Two

- Summer 2014 through Spring 2015
- Explore highly effective leadership strategies to move the AZCCRS in mathematics forward in schools and districts
- Support and focus the work of collaborative mathematics teams for significant student achievement and improvement
- Provide explicit guidance and resources on how to lead and exceed the assessment expectations of the AZCCRS in mathematics

#### Phase Three

- Summer 2015 through Fall 2015
- Leading Change Conference
- Culminating professional development activities
- Presentations by participants to spotlight progress
- Participation by university, community college and private college faculty and mathematics leadership

### Sustainability Plan

- Leader to leader district wide communication
- Common framework and knowledge base
- Instructional materials and professional development activities widely disseminated
- Site leadership and district team members continue together
- Common mathematics language spoken
- Leadership preparation program impact

# Accessing the learning materials



ARIZONA STATE UNIVERSITY

https://pll.asu.edu/p/content/public\_page/Increasing\_Teacher\_Quality\_ITQ